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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,631	11/21/2003	Arnis E. Peters	01-1668-E	3462

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EXAMINER	
AUSTIN, AARON	

ART UNIT	PAPER NUMBER
1775	

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/719,631	PETERS ET AL.	
	Examiner	Art Unit	
	Aaron S. Austin	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-17 and 20-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-17 and 20-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanikita et al. (U.S. Patent No. 5,833,889).

Tanikita et al. teach a lamp reflector for automobiles (column 5, lines 24-25) a resin film, such as a polyamide (of which nylon is an example) (column 3, line 24), with a thickness of 0.1 to 0.5 mm (column 3, lines 29-30) on which aluminum is deposited in a thickness of 1,000 angstroms (column 4, lines 51-53). In a series of examples, the base resin to which the aluminum is applied contains 30% by weight of glass fibers (column 4, lines 49-50). One of the examples incorporating glass fibers includes a polyamide as the resin film (Table XX1), of which nylon is an example. The decorative surface of the aluminum serves as "a lamp reflector having a light reflective surface F with high imaging properties" (column 4, lines 15-17). The phrase "decorative automobile trim piece" is considered intended use.

Claims 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bowen (GB 2027636A).

Bowen teaches a method of forming raised figures on a dial plate and the article produced thereby. The article includes an insert in the form of a dial plate having at least one hole and may consist of metal (page 1, lines 116-119). The dial plate has a decorative surface including a preformed skin on one side and a backing on the opposing side, both in the form of finish surfaces (page 2, lines 4-7). A thermoplastic resin is applied to the back of the dial plate backing and protrudes though the hole(s) in the dial plate to form resin features in association with the dial plate surface (page 1, lines 80-90 and page 2, lines 8-44). The resin may be formed of a wide range of thermoplastic materials that best suit the final decorative appearance and finish, including broad ranges of finish and color (page 1, lines 87-89 and 95-97).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanikita et al. (U.S. Patent No. 5,833,889) in view of Sweeny (EP 0376010 A2).

Tanikita et al. teach a lamp reflector for automobiles as described above.

Tanikita et al. do not teach an adhesive located between the metal second surface and the resin.

Sweeny teaches an automotive quality, laminate article and method of production thereof. The article comprises formed metal veneers and inner substrates formed in situ and bonded to the inner surface of the veneers (column 3, lines 1-16). The metal may be aluminum (column 4, line 1) and may have a thickness of 0.025 inches or less (Examples 1 and 2). The substrate is formed of resins such as polyester, epoxy, phenolic, and the like and may include impregnated fiber materials, such as glass filled fiber materials (column 4, lines 1-27). Adhesion of the metal to the substrate may be improved through use of metal pretreatments or promoters (columns 4 lines 35-53).

Therefore, as it is clearly taught by Sweeny that using an adhesive to join a metal sheet and a resin substrate provides the advantage of improving adhesion (column 4, lines 40-41), it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to locate an adhesive between the metal surface and the resin layer of the lamp reflector taught by Tanikita et al. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Regarding claim 15, in the alternative to the argument above, a glass filled polyamide is taught in Table XX1 of Tanikita et al. (see the Table and column 4, lines 45-56). Further, nylon is a thermoplastic polyamide (see OneLook Dictionary found at OneLook.com). However, the specification fails to state the polyamide is specifically nylon. Therefore, as a glass filled polyamide is taught and as nylon is a polyamide, it

would have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the glass filled resin taught by Tanikita et al. of nylon.

Claims 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeny (EP 0376010 A2) in view of Grefenstein et al. (International Application No. PCT/EP00/05755, U.S. equivalent: Patent Application Publication No. 2006/0029809), and further in view of Luch (U.S. Patent No. 4,429,020).

Sweeny teaches an article and method of production thereof as described above.

Sweeny does not specifically teach the resin layer as having a thickness of no greater than 2.5 mm, the range of 10 to about 30 wt% glass fibers, or the resin layer as a glass filled nylon resin.

Grefenstein et al. teach a backmolded polymer molding for use in the automotive sector, such as for trim (paragraphs [0017] and [0108] of U.S. equivalent) comprising a polymer film having a thickness of 0.5 to 1.0 mm and a backmolded fiber reinforced thermoplastic having a fiber content of from 5 to 30 wt%, such as glass fiber, and a thickness of from 1.5 to 4.5 mm (paragraphs [0014], [0016] and [105] of U.S. equivalent). Thermoplastic polymers include polyamides of which nylon is an example.

Therefore, as it is clearly taught by Grefenstein et al. that a backmolded fiber reinforced thermoplastic having a glass fiber content of from 5 to 30 wt% and a thickness of from 1.5 to 4.5 mm provides the advantages of increased durability of an automotive article (paragraph [0110] of U.S. equivalent), it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the glass filled

resin layer taught by Sweeny et al. of a glass filled nylon resin having a glass fiber content of from 5 to 30 wt% and a thickness of from 1.5 to 4.5 mm. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

With further regard to the thickness values and amount by weight of glass fiber of the resin layers taught by Sweeny, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness and glass fiber content for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With further regard to the resin layer as a glass filled nylon resin, Sweeny et al. teach the resin may be glass filled and may be selected from polyester, epoxy, phenolic, and the like, as noted above. Polyamides are included as like polymers to polyesters, etc. as used in metal polymer composites (see U.S. Patent No. 4,429,020 to Luch). Therefore it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the resin layer taught by Sweeny et al. of a glass filled nylon resin.

Response to Arguments

Applicant's arguments, see the Reply, filed March 13, 2006, with respect to objections to the specification, drawings, and claims as well as the claim rejections based upon 35 USC 112 have been fully considered and are persuasive in light of the present amendments. The objections to the specification, drawings, and claims have

been withdrawn. The rejection of claims 13-17, 20, and 23 based upon 35 USC 112 has been withdrawn.

Applicant's arguments with respect to claims 17 and 20-23 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed March 13, 2006 with respect to claims 12-16 have been fully considered but they are not persuasive. Particularly, Applicant argues Tanikita et al. do not teach the use of formed metal sheets as claimed. In support of this argument, Applicant recites the difference in steps of production as defining a difference between Tanikita et al. and the claimed invention. This argument is not found to be persuasive as the claims are to an article independent of the methods of its production. Applicant has failed to argue a difference between the claimed article and the article taught by Tanikita et al. exists. Without evidence to the contrary, the metal layer taught by Tanikita et al. is encompassed by the claim language, namely, the layer is a formed metal sheet as it is metal, in the form of a sheet, and is formed around the resin. Therefore the previous rejection is maintained.

With regard to claim 15, Applicant argues the only glass filled materials disclosed by Tanikita et al. are poly(phenylene sulfide) and poly(butylenes terephthalate). This argument is not found to be persuasive as a glass filled polyamide is taught in Table XX1 (see the Table and column 4, lines 45-56). Further, nylon is a thermoplastic polyamide (see OneLook Dictionary found at OneLook.com). Therefore, as a glass

filled polyamide is taught, so is a glass filled nylon resin. Therefore the previous rejection is maintained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron S. Austin whose telephone number is (571) 272-8935. The examiner can normally be reached on Monday-Friday: 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASA

JENNIFER C. MCNEIL
SUPERVISORY PATENT EXAMINER
4/25/06